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# FROM DRUG DESIGN TO TREATMENT SUCCESS

## WHAT REALLY MATTERS TO PATIENTS?

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CHARACTERISTICS OF MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN VERSUS KAWASAKI ON CLINICAL ASPECTS, SPECIFICITIES AND TREATMENT

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### **Background and importance**

Since Coronavirus (COVID-19) pandemic : High number of children hospitalized in the pediatric intensive care unit (PICU) because of **Pediatric Multisystemic Inflammatory Syndrome (MIS-C or PIMS)** resembling Kawasaki Disease (KD)

european association

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of hospital pharmacists

Aim and objectives Describe and compare MIS-C versus KD on:

- Clinic and the therapeutics we used
- Impact of treatments used
- Discuss the clinical evolution of our patients

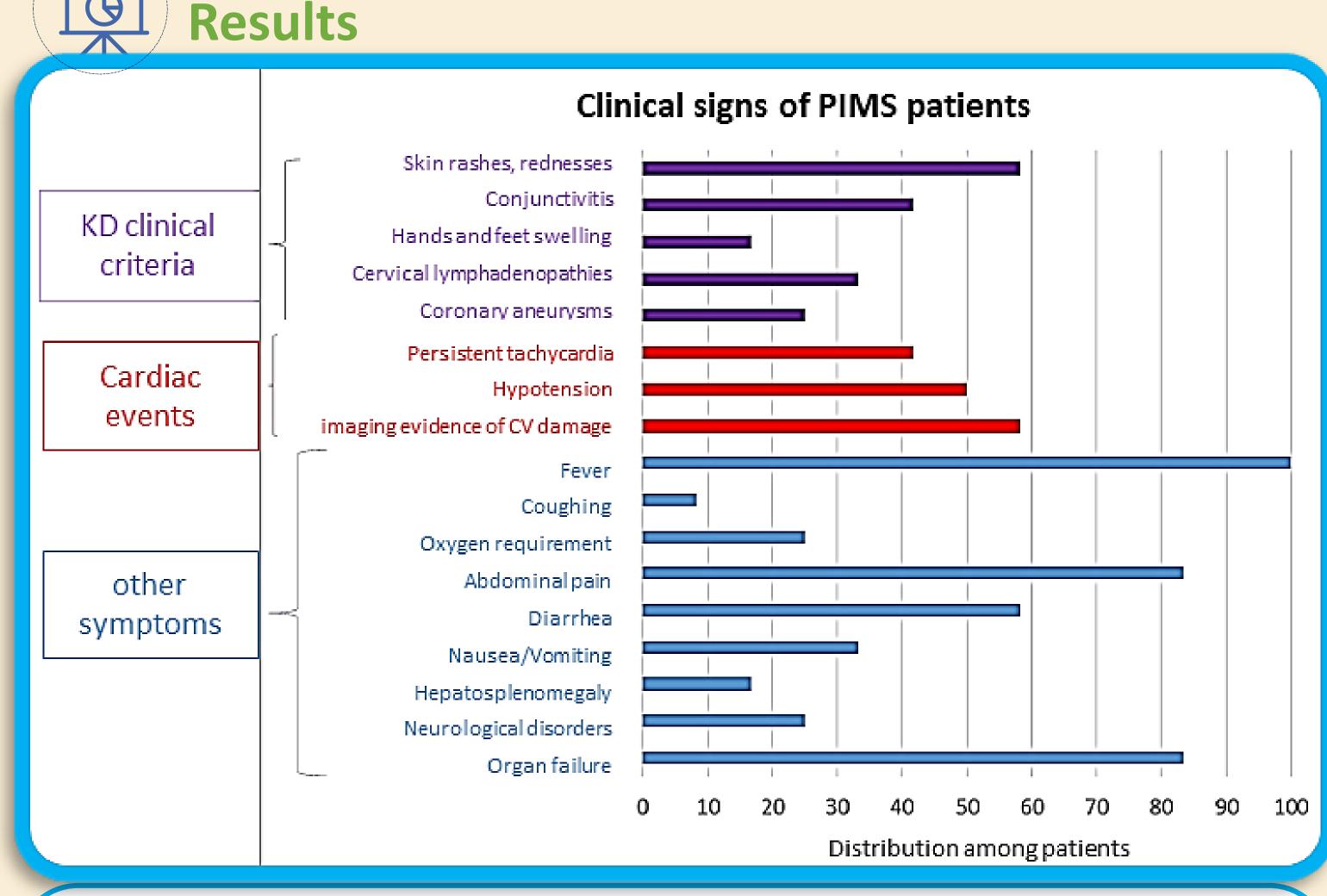


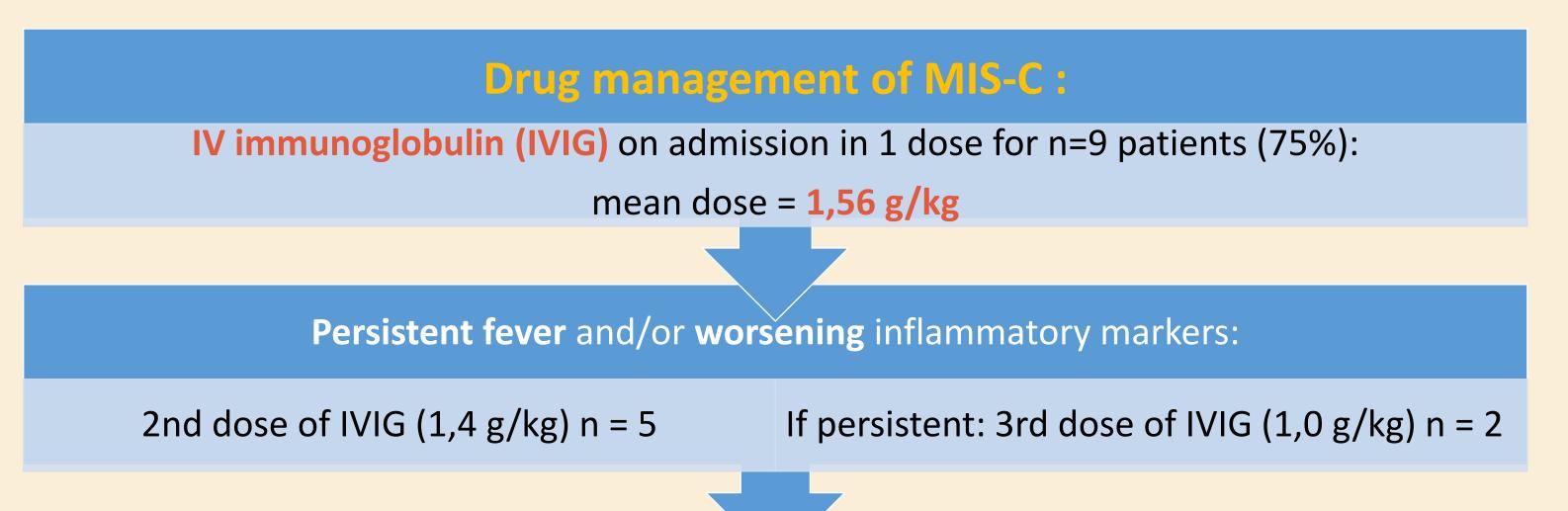


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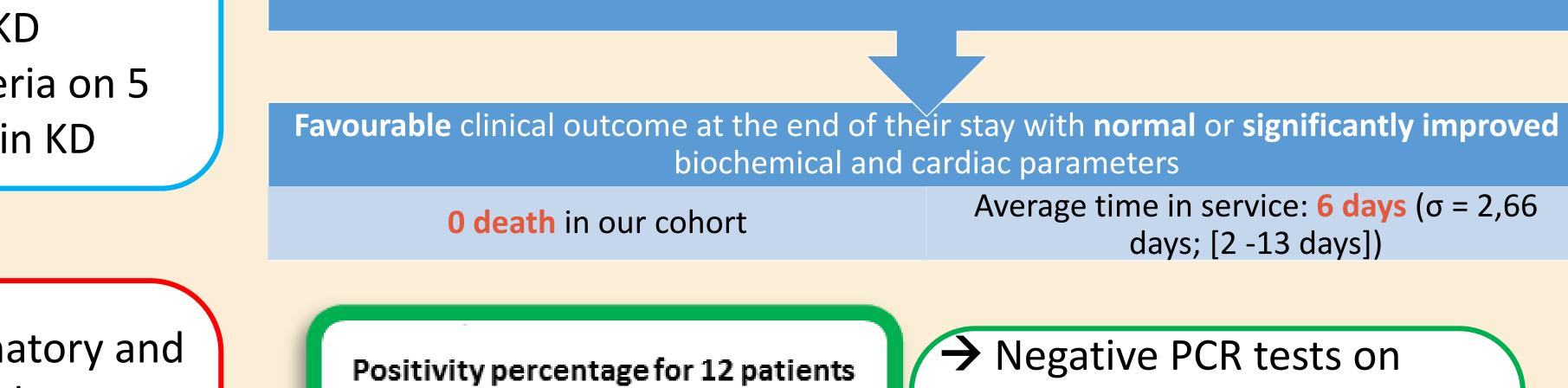
#### **Material and methods**

**Retrospective observational study** in the PICU over 9 month, April to December 2020. **Clinical, biological** and **medication** data for PIMS patients were collected via the computerized medical file, our presence in the department and the prescription software Then compared to scientific **literature** on KD





- **12 patients included**, median age 8 years [2 -16 years], H/F=2, diagnosed with MIS-C in PICU.
- All presented fever, duration = 5 days.
- 5 patients presented 2 clinical criteria characteristic of KD insufficient to diagnose complete KD, need 4 specific criteria on 5
   10 patients had gastrointestinal symptoms, rarely seen in KD



 Biological parameters in patients with MIS-C

 236,9 mg/mL
 44 208 ng/mL

 100
 90

 90
 100,4 G/L

 90
 10,4 G/L

 90
 10,4 G/L

 90
 10,4 G/L

 91
 94 ng/mL

 92
 60

 10,4 G/L
 94 ng/mL

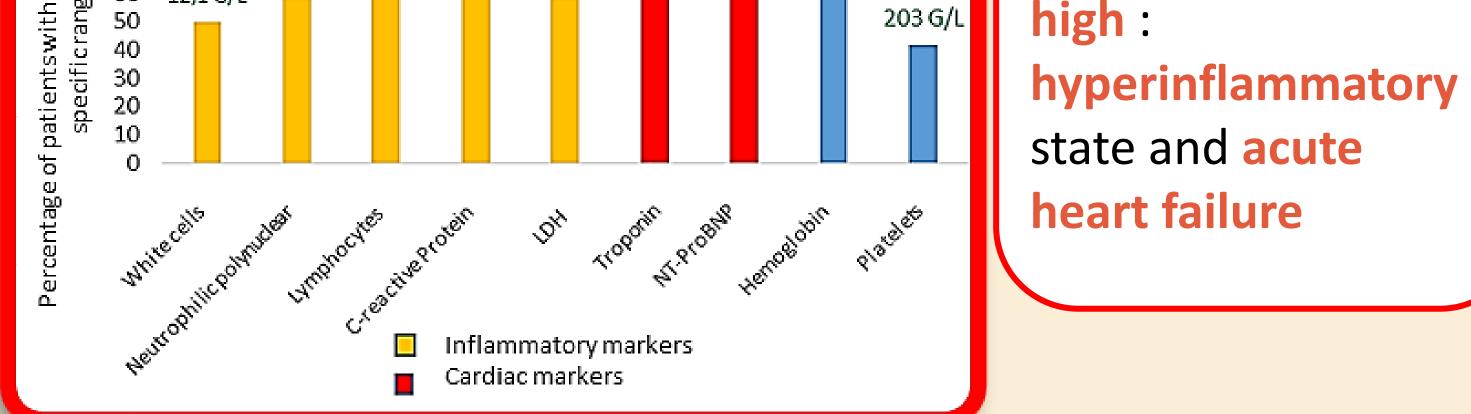
→ inflammatory and cardiac markers very

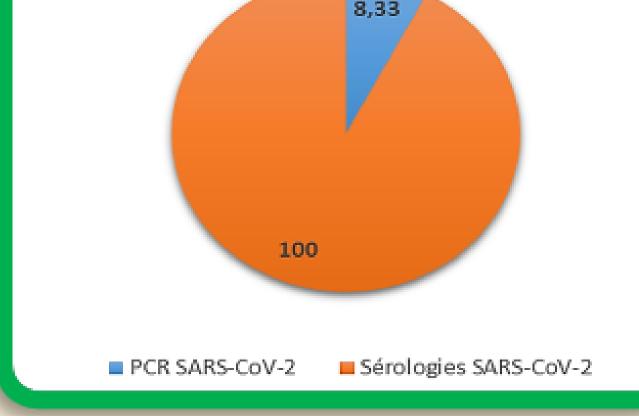
In case of resistant **hyperinflammation**:

IV Methylprednisolone at 1,76 mg/kg/d for a duration 4 days was administered to n = 10 patients (initiated at D1 for all)

9 patients required additional anti-inflammatory treatment with acetylsalicylic acid 60 mg/kg/d

Adapted vasopressor support by use of cardiotonic (adrenaline/noradrenaline for 25%) or diuretic (furosemide for 67%) and anticoagulant (enoxaparin for 42%)





anti-SRAS-CoV-2 antibodies in all patients. MIS-C = **post-COVID** disease **chronologically** distinct from COVID-19

admission and presence of

### **Conclusion and relevance**

Our patients described a clinical picture suggesting KD, with a **broader** symptomatology and severity, much more marked **inflammatory** and **cardiac** markers, a **shorter fever**, a **lower platelet count**, more **frequent gastrointestinal** involvement, the median age of our cohort was **higher**. The therapeutic strategy: **IVIG** and **corticosteroid** therapy appeared to be effective in our study.

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